

INSTITUTO NACIONAL DE ESTADÍSTICA Y GEOGRAFÍA

8111, Repair and maintenance of automobiles and trucks

turnover/output, basic statistics

Session: Maintenance and Repair of Motor Vehicles

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Production of basic economic statistics, turnover/output, for automotive repair and maintenance services activities, from Census and Surveys.

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I. - Definition of service being collected

Repair and maintenance of automobiles and trucks

According to the North American Industry Classification System (NAICS 2007), repair and maintenance of cars and trucks service, is defined as an economic unit primarily engaged in the repair and maintenance of cars and trucks, in mechanical and electrical repair, bodywork, upholstery, glass installation and other minor repairs on tires and tubes, washing and lubrication. Also include the general mechanical repairs of cars and trucks combined with the control vehicle emissions service, the adaptation of bodies, the restoration of antique automobiles, the welding cars and trucks to repair tops and chassis, as well as polishing and waxing.

Are excluded the revitalization of tires and tubes, the reconstruction series of car and truck engines and rectification series parts car and truck engines, trade retail specialty tires and tubes for cars and trucks; trade oils and greases, additives, antifreeze and similar motor vehicles.

II. - Unit of measure to be collected

The *Revenues from the provision of services* is the main concept for measuring economic evolution; through the Economic Surveys and Census are collected several variables related to incomes, in short-term statistics (monthly basis), for example, capture the following:

- Days worked
- Personnel directly employed by the firm
- Personnel not directly employed by the firm
- Remunerations
- **Expenditures on goods and services consumption**
- **Expenditures not derived from the activity**
- **Revenues for services rendered and goods sold**
- **Revenues not derived from the activity**

While for structural statistics (annual basis), we get a higher level of disaggregation:

- Personnel directly employed by the firm
- Personnel not directly employed by the firm
- Remunerations
- **Expenditures on goods and services consumption**
- **Expenditures not derived from the activity**
- **Revenues for services rendered and goods sold**
- **Revenues not derived from the activity**
- The production value
- Fixed assets
- Identification of suppliers and customers

And for Economic Census (every five years), among others variables:

- Participation of foreign capital
- Organization forms
- Occupied personnel
- Remuneration
- **Expenditures on goods and services consumption**
- **Expenditures not derived from the activity**
- **Revenues for services rendered and goods sold**
- **Revenues not derived from the activity**
- **The production value**
- Stocks
- Fixed assets
- Units and transport equipment
- Innovation and research

Revenues for the provision of services are defined as:

Revenues

It includes the monetary revenue obtained by this establishment during the month of reference as a result of the lending of the service and complementary activities, as well as by concept outside to its activities.

Operating revenues

It is the amount of the revenue obtained by all the services rendered and complementary activities realized by this establishment in the month of reference. The asked for concepts are:

- Revenues by the rendering of services.
- Net sales of merchandise acquired for its resale. It is the amount of the sales of merchandise realized by this establishment. To this value it must reduce to it the amount of the discounts, reductions and returns on these sales plus the expenses realized by delivery service, if there were them.
- Revenues by other concepts derived from its activities like commissions on sales; sales of rejection materials; the amount of the repair and maintenance services lent to third parties; for the services of rent of personal property and real states; by the storage; and by use of patents, marks and franchises, etcetera.

Non operating revenues

It is the amount of the revenues received by this establishment, during the month of reference, by concept outside to its activities.

| Include | Exclude |
|--|--|
| <ul style="list-style-type: none"> - Donations - Third party received dividends - Interests derived from financial activities - Surcharges | <ul style="list-style-type: none"> - The amount of the loans or credits received - The sale of fixed assets - The partner contributions (increases to |

| | |
|---|---------------|
| - Foreign exchange profits and subsidies. | the capital). |
|---|---------------|

III. – Market conditions and constraints

According to the results of the 2009 Economic Census, automotive repair and maintenance activities, have 185,720 establishments, representing about 37.65% of the Sector 81, *Other Services (except public administration)*, and 4.99% of total economic activities. A five-year term, establishments engaged in the repair and maintenance of cars and trucks have increased 22.65%; currently employing about 495,192 people and generating annual revenues of 46,554,189 (thousand pesos). In average each establishment employs 2.6 people; these units are characterized by micro and small size establishments.

Main characteristics of the economic units, 2008¹

Share of economic units by economic activity sector, 2008 (Percentages)

| NAICS Code | Economic units | |
|--|----------------|--------------|
| | Abs. | % |
| 81, Other services, except government activities | 493,337 | |
| 811, Repair and maintenance services | 290,734 | |
| 8111, Repair and maintenance of automobiles and trucks | 185,720 | 37.65 |
| 81111, Mechanical and electrical repair of automobiles and trucks | 108,006 | |
| 811111, General mechanical repair for automobiles and trucks | 62,328 | 33.56 |
| 811112, Electrical system repair for automobiles and trucks | 18,284 | 9.84 |
| 811113, Motor parts rectification for automobiles and trucks | 2,510 | 1.35 |
| 811114, Transmission repair for automobiles and trucks | 2,729 | 1.47 |
| 811115, Suspension repair for automobiles and trucks | 3,216 | 1.73 |
| 811116, Wheel alignment and balancing for automobiles and trucks | 2,222 | 1.20 |
| 811119, Other mechanical repair for automobiles and trucks | 16,717 | 9.00 |
| 81112, Tinwork, upholstery and other body repair for automobiles and trucks | 30,512 | |
| 811121, Tinwork and paint for automobiles and trucks | 27,667 | 14.90 |
| 811122, Upholstering for automobiles and trucks | 1,579 | 0.85 |
| 811129, Glass installation and other body repairs for automobiles and trucks | 1,266 | 0.68 |
| 81119, Other repair and maintenance services for automobiles and trucks | 47,202 | |
| 811191, Minor tire repair | 22,265 | 11.99 |

¹ INEGI, 2009 Economic Census, National results; www.inegi.org.mx
NAICS Mexico, 2007.

| | | |
|--|--------|------|
| 811192, Washing and lubricating of automobiles and trucks | 17,155 | 9.24 |
| 811199, Other repair and maintenance services for automobiles and trucks | 7,782 | 4.19 |

**Share of occupied personnel by economic activity sector, 2008
(Percentages)**

| NAICS Code | Occupied personnel | |
|--|--------------------|--------------|
| | Abs. | % |
| 81, Other services, except government activities | 1,212,362 | |
| 811, Repair and maintenance services | 738,394 | |
| 8111, Repair and maintenance of automobiles and trucks | 495,192 | 40.85 |
| 81111, Mechanical and electrical repair of automobiles and trucks | 283,089 | |
| 811111, General mechanical repair for automobiles and trucks | 166,869 | 33.70 |
| 811112, Electrical system repair for automobiles and trucks | 39,108 | 7.90 |
| 811113, Motor parts rectification for automobiles and trucks | 10,281 | 2.08 |
| 811114, Transmission repair for automobiles and trucks | 8,215 | 1.66 |
| 811115, Suspension repair for automobiles and trucks | 9,273 | 1.87 |
| 811116, Wheel alignment and balancing for automobiles and trucks | 7,981 | 1.61 |
| 811119, Other mechanical repair for automobiles and trucks | 41,362 | 8.35 |
| 81112, Tinwork, upholstery and other body repair for automobiles and trucks | 83,468 | |
| 811121, Tinwork and paint for automobiles and trucks | 77,205 | 15.59 |
| 811122, Upholstering for automobiles and trucks | 3,173 | 0.64 |
| 811129, Glass installation and other body repairs for automobiles and trucks | 3,090 | 0.62 |
| 81119, Other repair and maintenance services for automobiles and trucks | 128,635 | |
| 811191, Minor tire repair | 42,270 | 8.54 |
| 811192, Washing and lubricating of automobiles and trucks | 63,427 | 12.81 |
| 811199, Other repair and maintenance services for automobiles and trucks | 22,938 | 4.63 |

**Share of total gross output by economic activity sector, 2008
(Percentages)**

| NAICS Code | Total gross output | |
|--|--------------------|--------------|
| | Abs. | % |
| 81, Other services, except government activities | 86,059,787 | |
| 811, Repair and maintenance services | 43,034,110 | |
| 8111, Repair and maintenance of automobiles and trucks | 25,460,426 | 29.58 |
| 81111, Mechanical and electrical repair of automobiles and trucks | 15,175,706 | |
| 811111, General mechanical repair for automobiles and trucks | 8,140,832 | 31.97 |
| 811112, Electrical system repair for automobiles and trucks | 1,562,079 | 6.14 |
| 811113, Motor parts rectification for automobiles and trucks | 550,781 | 2.16 |
| 811114, Transmission repair for automobiles and trucks | 426,138 | 1.67 |
| 811115, Suspension repair for automobiles and trucks | 516,135 | 2.03 |
| 811116, Wheel alignment and balancing for automobiles and trucks | 865,055 | 3.40 |
| 811119, Other mechanical repair for automobiles and trucks | 3,114,686 | 12.23 |
| 81112, Tinwork, upholstery and other body repair for automobiles and trucks | 5,486,365 | |
| 811121, Tinwork and paint for automobiles and trucks | 5,099,528 | 20.03 |
| 811122, Upholstery for automobiles and trucks | 179,783 | 0.71 |
| 811129, Glass installation and other body repairs for automobiles and trucks | 207,054 | 0.81 |
| 81119, Other repair and maintenance services for automobiles and trucks | 4,798,355 | |
| 811191, Minor tire repair | 1,457,808 | 5.73 |
| 811192, Washing and lubricating of automobiles and trucks | 1,586,511 | 6.23 |
| 811199, Other repair and maintenance services for automobiles and trucks | 1,754,036 | 6.89 |

**Share of total revenues by economic activity sector, 2008
(Percentages)**

| NAICS Code | Total revenues | |
|--|-------------------|--------------|
| | Abs. | % |
| 81, Other services, except government activities | 157,790,329 | |
| 811, Repair and maintenance services | 77,860,234 | |
| 8111, Repair and maintenance of automobiles and trucks | 46,554,189 | 29.50 |
| 81111, Mechanical and electrical repair of automobiles and trucks | 28,398,384 | |
| 811111, General mechanical repair for automobiles and trucks | 16,009,644 | 34.39 |
| 811112, Electrical system repair for automobiles and trucks | 3,044,381 | 6.54 |
| 811113, Motor parts rectification for automobiles and trucks | 1,261,180 | 2.71 |
| 811114, Transmission repair for automobiles and trucks | 837,405 | 1.80 |
| 811115, Suspension repair for automobiles and trucks | 993,164 | 2.13 |
| 811116, Wheel alignment and balancing for automobiles and trucks | 1,489,489 | 3.20 |
| 811119, Other mechanical repair for automobiles and trucks | 4,763,121 | 10.23 |
| 81112, Tinwork, upholstery and other body repair for automobiles and trucks | 8,556,236 | |
| 811121, Tinwork and paint for automobiles and trucks | 7,847,185 | 16.86 |
| 811122, Upholstery for automobiles and trucks | 334,413 | 0.72 |
| 811129, Glass installation and other body repairs for automobiles and trucks | 374,638 | 0.80 |
| 81119, Other repair and maintenance services for automobiles and trucks | 9,599,569 | |
| 811191, Minor tire repair | 2,946,013 | 6.33 |
| 811192, Washing and lubricating of automobiles and trucks | 3,416,682 | 7.34 |
| 811199, Other repair and maintenance services for automobiles and trucks | 3,236,874 | 6.95 |

IV. – Standard classification structure and product details/levels

The **North American Industry Classification System (NAICS - Mexico)**, aims to provide a unique, consistent and updated framework for the collection, analysis and report of economic statistics, which reflects the structure of the Mexican economy. NAICS Mexico is the basis for the generation, presentation and dissemination of all economic statistics.

Repair and maintenance of automobiles and trucks, NAICS 2007 structure.

81, Other services, except government activities

811, Repair and maintenance services

8111, Repair and maintenance of automobiles and trucks

81111, Mechanical and electrical repair of automobiles and trucks

811111, General mechanical repair for automobiles and trucks

811112, Electrical system repair for automobiles and trucks

811113, Motor parts rectification for automobiles and trucks

811114, Transmission repair for automobiles and trucks

811115, Suspension repair for automobiles and trucks

811116, Wheel alignment and balancing for automobiles and trucks

811119, Other mechanical repair for automobiles and trucks

81112, Tinwork, upholstery and other body repair for automobiles and trucks

811121, Tinwork and paint for automobiles and trucks

811122, Upholstery for automobiles and trucks

811129, Glass installation and other body repairs for automobiles and trucks

81119, Other repair and maintenance services for automobiles and trucks

811191, Minor tire repair

811192, Washing and lubricating of automobiles and trucks

811199, Other repair and maintenance services for automobiles and trucks

trucks

Status of the development of the North American Classification Product System (NACPS), as July 2011

Service products have been tested in the 2009 Economic Census. We are currently working on the identification and definition of goods in the areas of trade and manufactures. Soon the three countries will exchange information they have on agricultural products, mining, electricity, gas and water, and construction. In addition work will continue in parallel on a proposed structure of demand aggregation approach which will include all goods and services that have been identified and agreed.

With regard to the products of the repair and maintenance activities, in the Economic Census were used preliminary lists of products with those obtained incomes by type of product, as an example the following table. However, there have not been incorporated products on short-term statistics; we are currently evaluating the questionnaires (annually and monthly) to collect products detail.

2009 Economic Census revenues from the provision of services, by product
(thousands of pesos)

| NAICS code | | | Product description | Revenues from the provision of services |
|------------|--------|-----------------|--------------------------|---|
| Activity | Family | code of service | | |
| 811111 | 110 | 111 | Oil change | 69,884 |
| | 110 | 112 | Brake system repair | 18,256 |
| | 110 | 113 | Electric system repair | 25,436 |
| | 110 | 114 | Electronic system repair | 7,404 |
| | 110 | 115 | Exhaust repair | 6,385 |
| | 110 | 116 | Suspension repair | 30,052 |
| | 110 | 117 | Motor parts pepair | 654,215 |
| | 110 | 119 | Others | 531 |

V. – Evaluation of standard vs. definitions and market conditions

While the definitions for recording turnover/output presented in the questionnaires are aligned with international recommendations and the National Accounts System (NAS), due to the very particular characteristics of the repair and maintenance activities, for instance, micro and small establishments, with an average of 2.6 employed persons, that do not made make use of accounting records to measure economic variables, it is difficult to collect data on short-term statistics, the alternative for measuring these activities has been incorporated into the sample some medium and large companies and apply basic variables of persons employed, wages, incomes and expenses.

VI. – National Accounts concepts and measurement issues related to GDP measurement

For purposes of calculating Gross Domestic Product (GDP) and the Global Indicator of Economic Activity (GIEA), the National Accounts makes an indirect calculation based on the relationship between indicators of physical volume of automobile production, considering that the vehicle fleet with an average use of five years or more, require frequent repair and maintenance services, also included in the calculation, the variables of incomes and expenses provided by the Economic Censuses and Surveys.

VII. – Turnover/output data methods and criteria for choosing various output methods

Generation of economic statistics (input for the calculation of National Accounts) and the generation of different indicators to measure economic evolution, is performed through an Integrated Surveys System in Economic Units, based on current legislation (LSNIEG, Article 22, paragraph II).

This system of surveys in economic units carried out monthly and annually, based on sample surveys; the monthly surveys covers main variables: employed personnel, wages, incomes and expenses, while the annual surveys covers structural variables: fixed assets, among others.

The output of Repair and maintenance of automobiles and trucks activities is measured as turnover. Since 2005, data are collected for short-term and structural statistics; turnover is measured in thousands of Mexican pesos and the statistical observation unit is the establishment. At present turnover by product is not available.

VIII. - Evaluation of comparability of turnover/output data with price index practices

Up to now, we have not calculated producer price indices at a six digits level, which is why there have been no comparisons with the turnover concept.